IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/729,428

Confirmation No. 8412

Applicant

: Eckroad, Steven

Filed:

December 5, 2003

Title:

INTEGRATED CLOSED LOOP CONTROL METHOD AND

APPARATUS FOR COMBINED UNINTERRUPTIBLE

POWER SUPPLY AND GENERATOR SYSTEM

TC/A.U.

2836

Examiner

Cavallari, Daniel J.

Docket No.

1036/3US

Customer No.

68553

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. §1.131

Dear Sir:

- I, Steven Eckroad, an inventor in the above-identified patent application, hereby declare as follows:
- 1. That prior to September 9, 2000, the invention disclosed in the above-referenced application was conceived.
- 2. That on September 9, 2000, I submitted an Invention Disclosure for the above-referenced application to the Manager of Patents and Licensing at Electric Power Research Institute, Inc. (EPRI), the assignee, and that the Disclosure was signed as being read and understood by a witness on September 27, 2000. See Exhibit A.

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- 3. That on October 12, 2000, the Disclosure was received by EPRI's legal department, as shown by the stamp on Exhibit A.
- 4. That on October 18, 2000, EPRI forwarded the Disclosure to the law firm Flehr, Hohback, Test, Albritton & Herbert LLP for a prior art search and opinion. See Exhibit B.
- 5. That on December 4, 2000, Flehr, Hohback, Test, Albritton & Herbert LLP forwarded the results of the prior art search to EPRI. See Exhibit C.
- 6. That on December 8, 2000, EPRI instructed Flehr, Hohback, Test, Albritton & Herbert LLP to prepare and file a patent application based on the Disclosure. See Exhibit D.
- 7. That on February 16, 2001, a first draft of the application prepared by Flehr, Hohback, Test, Albritton & Herbert LLP was forwarded to me for review. See Exhibit E.
- 8. That sometime between February 16, 2001 and January 28, 2002 a review of the draft application was completed and comments were forwarded to Flehr, Hohback, Test, Albritton & Herbert LLP.
- 9. That on January 28, 2002, a revised draft of the above-referenced application was forwarded to me by Flehr, Hohback, Test, Albritton & Herbert LLP. See Exhibit F.
- 10. That sometime between January 28, 2002 and the filing date of December 6, 2002, EPRI moved the above-referenced application from Flehr, Hohback, Test, Albritton & Herbert LLP to Dorsey & Whitney LLP. See Exhibit G.
- 11. That on December 6, 2002, Provisional Application No. 60/431,464 ("'464" application) was filed for the above-referenced application with the United States Patent and Trademark Office. See Exhibit G.

Application No. 10/729,428 Eckroad, Steven Page 3

- 12. That on December 5, 2003, Application No. 10/729,428 was filed claiming benefit to the '464 application.
- 13. The Declarant further states that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: Sugart 4, 2008

Steven Eckroad



DISCLOSURE: Integrated Closed Loop Control Principle for Combined UPS and Generator System

September 9, 2000

PATENTO

TO:

Manager, Patents & Licensing, EPRI

OCT 1 2 2000

FROM:

Steven Eckroad

SUBJECT: DISCLOSURE OF DISCOVERY

In accordance with the EPRI discovery policy, I hereby disclose to the Institute the Discovery described in the succeeding paragraphs of this memorandum of disclosure and in any attachment hereto.

1. Title of Discovery:

Integrated Closed Loop Control Principle for Combined UPS and Generator System

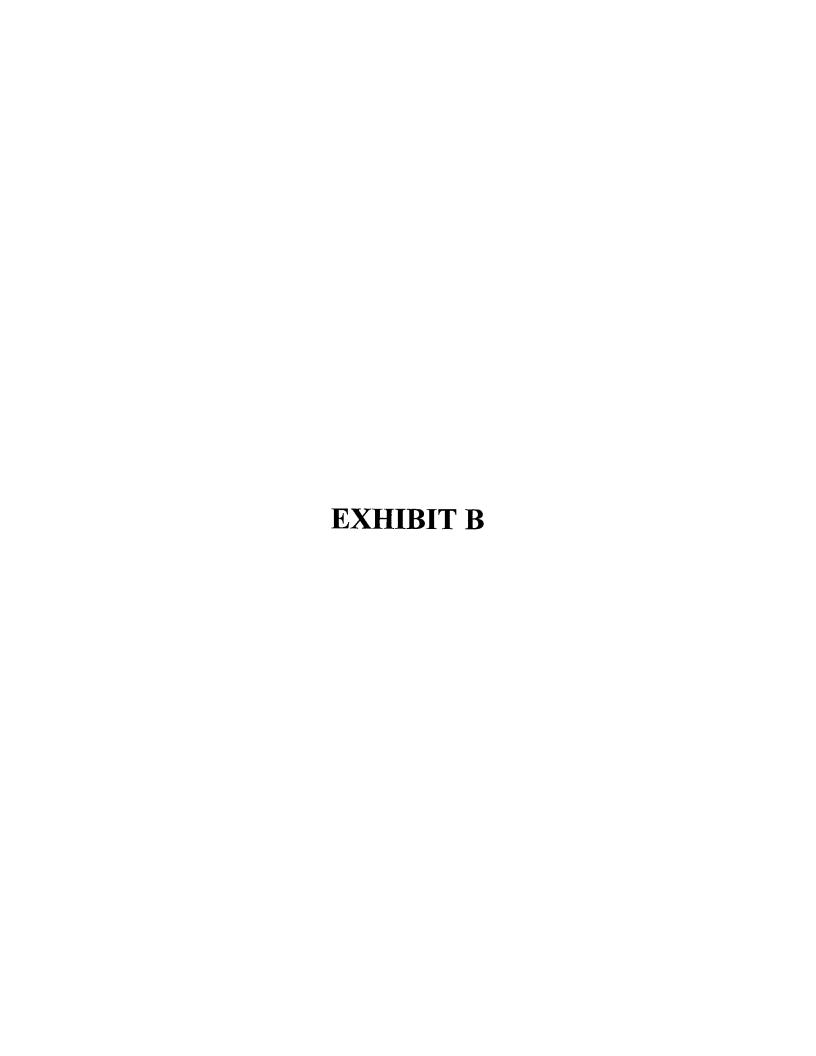
- 2. Identification of inventors:
 - a. Name:
- 1. Steven Eckroad
- 2. Franz Joseph Unterlass
- 3. Martin Hilscher
- 4. Hans-Christian Doht
- b. Title
- 1. Project Manager
- 2. Project Leader
- 3. Engineer
- 4. Engineer
- c. Address:
- 1. 125 Bayview Road, Pacifica, CA 94099, United States
- 2. Heppstedt 30; ZIP 91325 Adelsdorf, Germany
- 3. David-Morgenstern-Weg 3; ZIP 91056 Erlangen, Germany
- 4. Werner-von-Siemens- Str. 19; ZIP 91052 Erlangen, Germany
- d. Citizenship:
- 1. United States
- 2. Austria
- 3. Germany
- 4. Germany

This disclosure was read and understood by me on (date).

(Signature of witness)

(Date of signature)

Page 1 of 32



October 18, 2000



0020750

Aldo J. Test, Esq. Flehr, Hohbach, Test, Albritton & Herbert LLP Suite 200 850 Hansen Way Palo Alto, CA 94304-1017

RE:

Invention Disclosure entitled "Integrated Closed Loop Principle for Combined UPS

and Generator System"

EPRI No.:

KD4481-01-03

Dear Mr. Test:

We are enclosing a copy of the above identified invention disclosure.

We would appreciate your conducting a prior art search covering the disclosure, providing us with an opinion as to patentable subject matter, and providing an estimate of fees and expenses for the preparation and filing of a patent application covering the invention.

If you have any questions concerning the invention, please call.

Very truly yours,

Sumi Yamashita

Sr. Patent Administrator

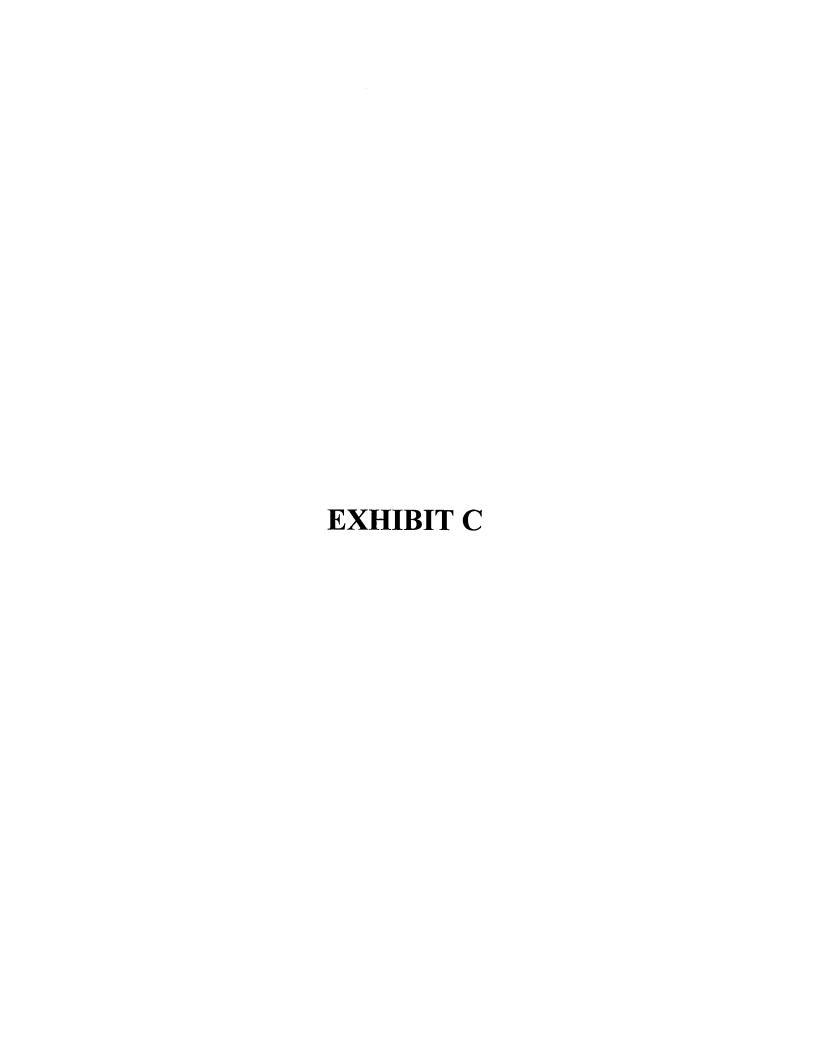
Intellectual Property

Tel. No. (650) 855-2212

Fax No. (650) 855-8931

Enclosure

C: S. Eckroad



FLEHR HOHBACH TEST **ALBRITTON** & HERBERT

LLP

Intellectual Property Law

December 4, 2000

0021043

Ms. Sumi Yamashita

PATENTS

4 Embarcadero Center **Suite 3400**

Sr. Patent Administrator

Electric Power Research Institute

DEC

San Francisco, CA 94111-4187

P.O. Box 10412

Palo Alto, California 94303

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Phone (650) 494-8700 Fax (650) 494-8771

http://www.flehr.com

850 Hansen Way Suite 200

> Harold C. Hohbach Aldo J. Test

Donald N. MacIntosh

Edward S. Wright David J. Brezner

Richard E. Backus James A. Sheridan

Steven F. Caserza Edward N. Bachand R. Michael Ananian

Robin M. Silva

Karen S. Smith

Todd A. Lorenz Robert H. Pinsker, M.D. Steven M. Freeland

> Larry Mendenhall Diane J. Mason

William E. Nuttle

Renee M. Kosslak James J. Diehl *John W. Crosby

Brian T. Clarke *Member of Colorado Bar

David C. Foster * Victor E. Johnson * Michael Johnson David Rogers

Julie E. Daniels

OF COUNSEL Julian Caplan

*Registered Patent Agent

TECHNICAL ADVISORS

Michael A. Kaufman Maria S. Swiatek

Robert B. Chickering Richard F. Trecartin Re:

Eckroad, et al. Invention Disclosure for:

INTEGRATED CLOSED LOOP PRINCIPLE FOR COMBINED UPS AND

GENERATOR SYSTEM

Your Ref. KD4481-01-03

Our Ref. A-69958/AJT/SMF

Dear Ms. Yamashita:

Pursuant to your request, we have conducted a prior art search employing the U.S. Patent and Trademark Office internet search facility directed to the mechanism described in the above-referenced disclosure. In particular, we searched for a UPS or uninterruptible power supply and a generator, and further the concept of using a dual controller monitoring both current and voltage.

We found Patent 5.929.583 which describes a multimode power processor for power generation. We did not find any prior art patents describing the use of a controller for a combined UPS and generator system used in the compensation of voltage disturbances and power interruptions on a transmission line.

It is our opinion, in view of the above, that the invention described in the disclosure dated September 9, 2000 (KD4481-01-03) contains patentable subject matter, namely the dual mode control for a combined UPS and generator system.

Our estimate for the preparation and filing of a patent application covering the above noted invention is about to plus costs. Please feel free to call me if you have any questions or comments.

Very truly yours,

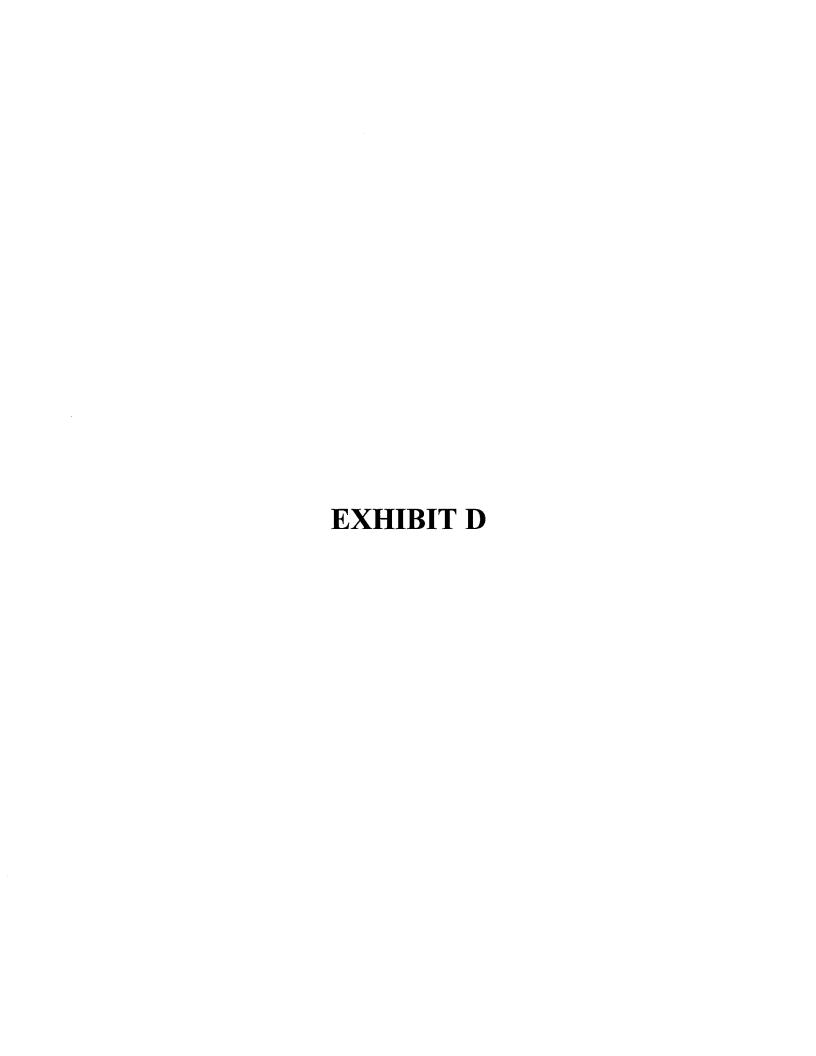
FLEHR HOHBACH TEST ALBRITTON & HERBERT LLP

from Zund Steven M. Freeland

Jerry G. Wright Thomas O. Herbert, Retired Paul D. Flehr (1898-1992)

Elmer S. Albritton (1922-1988)

Enclosure 1020929





December 8, 2000

0021060

Steven M. Freeland, Esq. Flehr, Hohbach, Test, Albritton & Herbert LLP Suite 200 850 Hansen Way Palo Alto, CA 94304-1017

RE: Invention Disclosure entitled "Integrated Closed Loop Principle for Combined UPS and

Generator System"

FHTA&H No. A-69958/AJT/SMF

EPRI No. KD4481-01-03

Dear Mr. Freeland:

Thank you for your letter dated December 4, 2000 in which you had provided us with a patentability opinion concerning the above identified invention disclosure.

Based upon your opinion, EPRI wishes to proceed with the preparation and filing of a patent application. If you have any questions regarding the invention, please contact EPRI's Steve Eckroad at (650) 855-1066 (email: seckroad@epri.com).

Very truly yours,

Sumi Yamashita

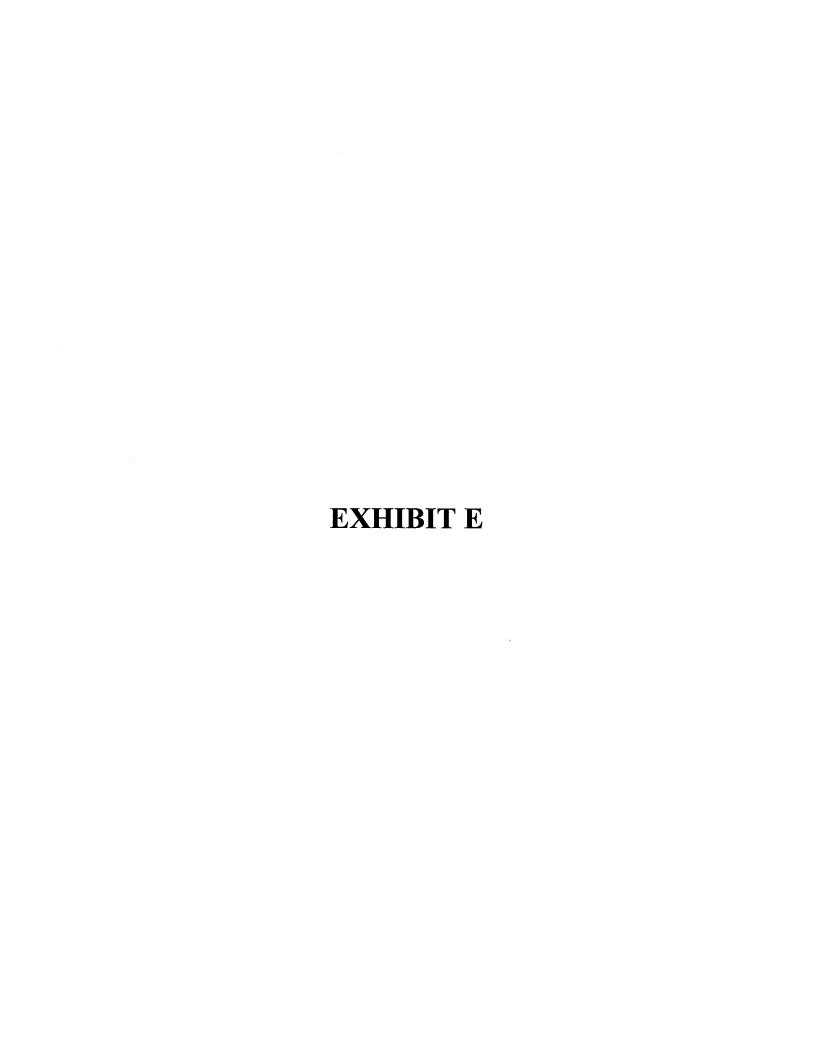
Sr. Patent Administrator

Intellectual Property

Tel. No. (650) 855-2212

Fax No. (650) 855-8931

C: S. Eckroad



FLEHR HOHBACH TEST **ALBRITTON** & HERBERT

February 16, 2001

FEB 2 1 2001

LLP

Intellectual Property Law

0021471

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> Harold C. Hohbach Aldo J. Test Donald N. MacIntosh Edward S. Wright David J. Brezner Richard E. Backus James A. Sheridan Robert B. Chickering Richard F. Trecartin Steven F. Caserza Edward N. Bachand R. Michael Ananian Robin M. Silva Michael A. Kaufman Maria S. Swiatek Todd A. Lorenz Karen S. Smith Robert H. Pinsker, M.D. Steven M. Freeland Larry Mendenhall Diane J. Mason William E. Nuttle Renee M. Kosslak James J. Diehl *John W. Crosby Brian T. Clarke Anne M. Shyjan *Member of Colorado Bar TECHNICAL ADVISORS David C. Foster * Victor E. Johnson * Michael Johnson David Rogers

OF COUNSEL Julian Caplan Jerry G. Wright

Julie E. Daniels Daphne L. Reddy *Registered Patent Agent

Thomas O. Herbert, Retired Paul D. Flehr (1898-1992) Elmer S. Albritton (1922-1988) Mr. Steven Eckroad Electric Power Research Institute 3412 Hillview Avenue Palo Alto, CA 94304-1395

Re: Ecroad et al.

> U.S. Patent Application for Integrated Closed Loop Principle for Combined UPS and Generator System

Your Ref.: KD4481-01-03 Our Ref.: A-69958/AJT/SMF

Dear Steve:

Please find enclosed a preliminary draft of the application including informal figures, background, summary, description of the drawings, and description of the preferred embodiment. Comments to you have been typed in bold throughout the document. Blank spaces, identified with lines, have been provided for additional terms, phrases, or clarification. The claims still need to be added. This material is based primarily on your disclosure dated September 9, 2000. Please review the application and provide comments as to misunderstandings or lack of completeness reflected therein.

When reviewing this draft, please keep in mind that the application must reflect your best mode of implementing the invention at the time the application is filed.

If you have any questions, please call me at (650) 494-8700 or send me a fax message at (650) 494-8771. I can also be reached via e-mail at sfreeland@flehr.com.

Yours very truly,

FLEHR HOHBACH TEST

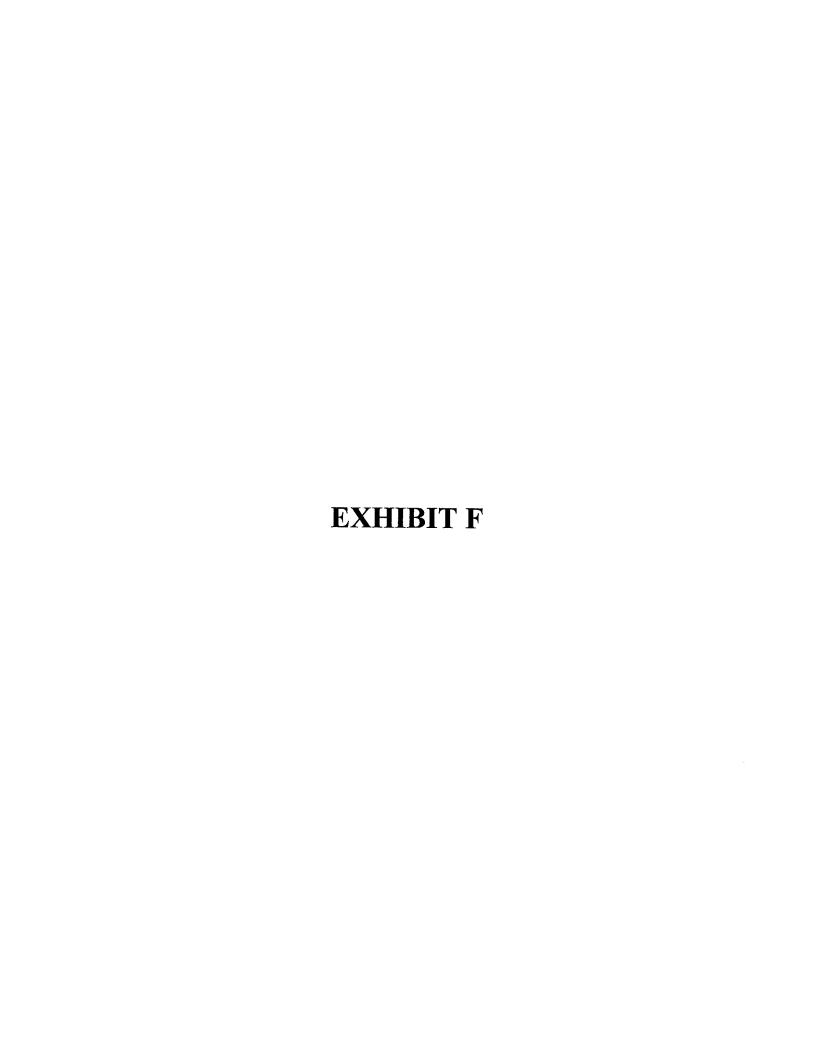
ALBRITTON & HERBERT LI Steven M. Freeland Kin S

SMF:kms 1024651 Encls.

cc:

✓Sumi Yamashita

Aldo J. Test



23967

January 28, 2002

LLP

Intellectual Property Law

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Thomas O. Herbert, Retired Paul D. Flehr (1898-1992) Elmer S. Albritton (1922-1988)

Michael Van Loy Stephanie R. Neutz Jennifer Lane *Registered Patent Agent Mr. Steven Eckroad Electric Power Research Institute 3412 Hillview Avenue Palo Alto, CA 94304-1395

Re: Ecroad, et al.

Proposed New U.S. Patent Application Entitled: Integrated Closed Loop Control Method and Apparatus for Combined Uninterruptible Power Supply (UPS) and Generator System

Your Ref.: KD4481-01-03 Our Ref.: A-69958/AJT/SMF

Dear Steve:

In preparation for your meeting on Thursday, January 31, 2002, with Mr. Ananian, we enclose the revised draft of the patent application incorporating your suggested changes.

Please examine the patent application carefully for technical accuracy and completeness. To be complete, the patent application must teach one skilled in your technology area to make and use the invention in the best way known to the inventors at the time we file the application. Be aware that, once the patent application is filed with the patent office, we cannot make substantive changes to the application without compromising certain rights. In the interest of efficiency, let us know all revisions and/or additions, and provide exact word changes whenever possible.

Patent Office regulations require that we identify any prior art that may show or suggest the claimed invention. Accordingly, please provide us with any patents, publications, or product literature that you believe is relevant to the invention and which you have not already disclosed to us. Please note that this duty of disclosure exists throughout the pendency of the patent application

Mr. Steven Eckroad January 28, 2002 Page 2

Thank you for your assistance with this matter. If you have any questions or comments, please do not hesitate to contact us.

Yours very truly,

FLEHR HOHBACH TEST

ALBRITTON & HERBERT LLP

Victoria Christopher for R. Michael Ananian

vcc

cc: Sumi Yamashita

Aldo J. Test

1031896





Commissioner for Patents
Washington, DC 2023

APPLICATION NUMBER FILING DATE GRP ART UNIT FIL FEE REC'D ATTY.DOCKET.NO DRAWINGS TOT CLAIMS IND CLAIMS

60/431,464

R. Michael Ananian

Suite 3400

DORSEY & WHITNEY LLP

Four Embarcadero Center San Francisco, CA 94111-4187

12/06/2002

160

P-69958/RMA

22

CONFIRMATION NO. 8804

FILING RECEIPT

OC00000009572783

Date Mailed: 02/27/2003

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Steven Eckroad, Pacifica, CA;

If Required, Foreign Filing License Granted: 02/26/2003

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

Title

Integrated closed loop control method and apparatus for combined uninterruptible power supply (UPS) and generator system

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED